



Works approval number	W6163/2018/1
Works approval holder	Hanson Construction Materials Pty Ltd
ACN	009 679 734
Registered business address	Level 10, 35 Clarence Street, SYDNEY NSW 2000
DWER file number	DER2018/001178
Duration	06/10/2021 to 05/10/2026
Date of issue	1 June 2022
Premises details	Hanson Oldbury Sand Quarry Lot 6 on Diagram 47557, Lot 300 on Diagram 75682 and Lot 301 on Diagram 75682, Boomerang Road, OLDBURY WA 6121

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed production / design capacity
Category 12: Screening etc. of material: premises on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated.	Up to 250,000 tonnes per annum

This works approval is granted to the works approval holder, subject to the attached conditions, on 1 June 2022, by:

Samara Rogers

**A/MANAGER, RESOURCES INDUSTRIES
REGULATORY SERVICES**

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Works approval history

Date	Reference number	Summary of changes
06/10/2021	W6163/2018/1	Works approval granted
1/06/2022	W6163/2018/1	Works approval amendment to give effect to appeal determination 044/21.

Interpretation

In this works approval:

- (a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate:
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning:
- (c) where tables are used in a condition, each row in a table constitutes a separate condition:
- (d) any reference to an Australian or other standard, guideline, or code of practice in this works approval:
 - (i) if dated, refers to that particular version; and,
 - (ii) if not dated, refers to the latest version and therefore may be subject to change over time:
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and
- (f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This works approval requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this works approval.

Works approval conditions

The works approval holder must ensure that the following conditions are complied with:

Construction phase

Infrastructure and equipment

1. The works approval holder must:
 - (a) install the infrastructure and equipment:
 - (b) in accordance with the corresponding design and installation requirements; and
 - (c) at the corresponding infrastructure location.as set out in Table 1.

Table 1 Design and installation requirements

Item	Infrastructure and equipment	Design and installation requirements	Infrastructure location
1	Mobile screening plant and materials conveyors	<ul style="list-style-type: none">Plant is installed as per the manufacturer's specifications.Plant maximum sound power level not to exceed 106 decibels (dB(A)).Plant maximum processing capacity of 600 tonnes per hour.Plant to be situated on the pit floor behind the quarry face at +18 metres Relative Level (RL).	Locations indicated in Schedule 1, Figure 2.
2	Dust monitors	<ul style="list-style-type: none">Two (2) tapered element oscillating membrane (TEOM) monitors to be installed at the locations outlined within Schedule 1, Figure 2;Installed in accordance with AS/NZS 3580.1.1: <i>Methods for the sampling and analysis of ambient air – Guide to siting air monitoring equipment.</i>	AQ1 and AQ2 as depicted in Schedule 1, Figure 2.

Compliance reporting

2. The works approval holder must within 30 calendar days of an item of infrastructure or equipment as required by condition 1 being installed:
 - (a) undertake an audit of their compliance with the requirements of condition 1; and
 - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
3. The Environmental Compliance Report required by condition 2, must include as a minimum the following:
 - (a) certification by a crushing/screening plant operator and fitter that the crushing and screening plant and component(s) thereof, as specified in condition 1

have been constructed in accordance with the relevant requirements specified in condition 1;

- (b) certification by a third party that the installation of the dust monitors specified in condition 1 have been installed as per the relevant Australian Standard; and
- (c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Time limited operations phase

Commencement and duration

4. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1 where the Environmental Compliance Report as required by condition 3 has been submitted by the works approval holder for that item of infrastructure.
5. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 6 (as applicable):
 - (a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 4 for that item of infrastructure; or
 - (b) during the 180 calendar days, until such time as a registration or licence for that item of infrastructure is granted in accordance with Part V of the *Environmental Protection Act 1986*.

Time limited operations requirements and emission limits

6. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 2 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 2.

Table 2: Infrastructure and equipment requirements during time limited operations

	Site infrastructure and equipment	Operational requirement	Infrastructure location
1.	Screening plant and materials conveyors	<ul style="list-style-type: none"> • Maintain all mobile equipment as per manufacturer's specifications. • Plant only to be operated at the phase 1 locations depicted in Schedule1, Figure 2 during time limited operations • Plant to be operated only when situated on the pit floor behind the quarry face at +18 metres Relative Level (RL). • Keep suitably stocked spill response equipment close to where spills may occur. • Ensure all staff are trained to use the spill response equipment. • Contain and clean-up spills as soon as they occur. 	Yellow locations within phase 1 as shown in Schedule 1, Figure 2.

	Site infrastructure and equipment	Operational requirement	Infrastructure location
		<ul style="list-style-type: none"> Clean surface water runoff is to be diverted around screening plant infrastructure. Potentially contaminated surface waters are to be contained and recovered onsite via storage bunds or retention ponds. 	
2.	Mobile machinery and vehicles	<ul style="list-style-type: none"> Komatsu WA600 Front End Loader with sound power level not to exceed 110 decibels. Haulage trucks sound power levels not to exceed 106 decibels. Broad band reversing alarms to be fitted to machinery and vehicles to minimise noise (as opposed to tonal alarms). 	Within the operational pit area outlined in orange as shown in Schedule 1, Figure 2.
3.	Water cart	<ul style="list-style-type: none"> Maintain engine and exhaust system as per manufacturers specifications. Capacity of 15,000 litres. Must be filled and in operational capacity each day prior to the commencement of screening operations. 	Within the operational pit area outlined in orange as shown in Schedule 1, Figure 2 and on haulage roads.
4.	Hydrocarbon or chemical storage areas.	<ul style="list-style-type: none"> Store environmentally harmful materials in secured, covered, impervious and bunded areas. Bunded areas to have a minimum capacity of 110% of the largest container stored within it, or 25% of the volume of all containers, whichever is the larger. 	Within the operational pit area outlined in orange as shown in Schedule 1, Figure 2.
5.	Dust screens on fences	<ul style="list-style-type: none"> Maintain as per manufacturers specifications. Examine regularly for holes/tears and replace or repair as required. To be a minimum of 1.8m high above ground level. 	Located in sections along the sand extraction boundary as depicted by the red line shown within Schedule 1, Figure 3.
6.	Dust monitors	Operated in accordance with AS/NZS 3580.1.1:2007 Methods for the sampling and analysis of ambient air – Guide to siting air monitoring equipment.	AQ1 and AQ2 as indicated in Schedule 1, Figure 2.
7.	Noise Bund between Phase 1 (Stage 1 and 2) and Phase 2	<ul style="list-style-type: none"> A Noise Bund must be maintained which consists of an undisturbed natural sand ridge between Phase 1 and 2 of the pits' construction. 	Noise Bund as depicted in Schedule 1, Figure 2.

	Site infrastructure and equipment	Operational requirement	Infrastructure location
	(Stage 3)	<ul style="list-style-type: none"> Remnant vegetation must remain on the undisturbed natural sand ridge between Phase 1 and 2. 	

7. The works approval holder must ensure that no visible dust generated from the primary activities crosses the boundary of the premises.
8. The works approval holder must manage dust generation at the premises by:
 - (a) wetting down unsealed roads;
 - (b) wetting down stockpiles and operational areas; and
 - (c) locate material stockpiles greater than 50 metres from the premises boundary
9. The works approval holder must prepare a Construction Noise Management Plan that clearly describes the construction techniques during Phase 1 (stages 1 and 2) and Phase 2 (Stage 3) construction of the pit and the proposed management controls to mitigate noise during construction activities.

Monitoring during time limited operations (Noise and Dust)

10. Within 30 days of the commencement of time limited operations the works approval holder must retain the services of a person qualified and experienced in the area of environmental noise assessment and who by their qualifications and experience is eligible to hold membership of the Australian Acoustical Society or the Australian Association of Acoustical Consultants to:
 - (a) investigate the nature and extent of noise emissions from the premises including undertaking noise monitoring during normal operations at the boundary of the closest noise sensitive human receptor;
 - (b) assess in accordance with the methodology required in the *Environmental Protection (Noise) Regulations 1997*, the compliance of the noise emissions from the primary activities, against the relevant assigned levels specified in those Regulations; and,
 - (c) compile and submit to the works approval holder a report in accordance with condition 12 within 30 days of completing the investigation required by condition 10(a)
11. Within 7 days of the commencement of time limited operations the works approval holder shall undertake the monitoring of ambient air quality in Table 3 in accordance with the specifications in that table.

Table 3 Monitoring of Air Quality (Dust)

Parameter	Monitoring Location	Units	Frequency	Target	Averaging Period	Method
PM ₁₀	AQ1 at Lot 301 as shown in Schedule 1 figure 2	µg/m ³	Continuous during time limited operations	50 µg/m ³	24-hour average	AS3580.9.8
PM ₁₀	AQ2 at Lot 6 as shown	µg/m ³	Continuous during time limited	50 µg/m ³	24-hour	AS3580.9.8

Parameter	Monitoring Location	Units	Frequency	Target	Averaging Period	Method
	in Schedule 1 figure 2		operations		average	
Wind direction	Jandakot BOM station (009172)	Degrees (°)	Continuous during time limited operations	N/A	1-hour average	AS3580.14
Wind speed	Jandakot BOM station (009172)	m/s	Continuous during time limited operations	N/A	1-hour average	AS3580.14

Compliance reporting

12. A report prepared pursuant to condition 10(c) is to include:
 - (a) a description of the methods used for monitoring and/or modelling of noise emissions from the premises;
 - (b) details and the results of the investigation undertaken pursuant to condition 10(a); and,
 - (c) details and results of the assessment of the noise emissions from the premises, against the relevant assigned levels in the *Environmental Protection (Noise) Regulations 1997* undertaken pursuant to condition 10(b).
13. The works approval holder must submit to the CEO the report prepared pursuant to condition 10(c) within 7 days of receiving it.
14. Where an assessment pursuant to condition 10(b) indicates that noise emissions do not comply with the relevant assigned levels in the *Environmental Protection (Noise) Regulations 1997*, the license holder must:
 - (a) cease time limited operations for the infrastructure specified in condition 6;
 - (b) within 21 days of receiving an assessment report pursuant to condition 10(c) prepare a plan to ensure the undertaking of the licensed activity will no longer lead to any contravention of the *Environmental Protection (Noise) Regulations 1997*; and
 - (c) provide to the CEO a copy of the plan prepared pursuant to condition 14(b) within 30 days of its preparation.
15. A report prepared pursuant to condition 14(b) is to include timeframes for the completion of additional noise mitigation measures.
16. The works approval holder may recommence time limited operations of the infrastructure specified in condition 6 upon implementation of all noise mitigation measures identified in accordance with condition 14(b).
17. Where operations are recommenced in accordance with condition 16, the works approval holder must notify the CEO in writing a minimum of 48 hours prior to recommencing time limited operations.
18. The works approval holder must submit to the CEO a report on the time limited operations within 30 calendar days of the completion date of time limited operations.

- 19.** The works approval holder must ensure the report required by condition 18 includes the following:
- (a) a summary of the time limited operations, including timeframes and amount of material processed;
 - (b) a summary of the environmental performance of all infrastructure as constructed or installed;
 - (c) a review of performance and compliance against the conditions of the works approval;
 - (d) monitoring data as required by condition 11, including the raw data; and
 - (e) where the manufacturer's design specifications and the conditions of this works approval have not been met, what measures will the works approval holder take to meet them, and what timeframes will be required to implement those measures.

Records and reporting (general)

- 20.** The works approval holder must, within 7 days of becoming aware of any non-compliance with the targets outlined in Table 3 of this licence, notify the CEO in writing of that non-compliance and include in that notification the following information:
- (a) Details of exceedance of dust target, including wind direction, speed, time and date;
 - (b) the details and result of any investigation undertaken into the cause of the non-compliance;
 - (c) what action has been taken and the date on which it was taken to prevent the non-compliance occurring again; and
 - (d) what action will be taken and the date by which it will be taken to prevent the non-compliance occurring again.
- 21.** The works approval holder must record the following information in relation to complaints received by the works approval holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:
- (a) the name and contact details of the complainant, (if provided);
 - (b) the time and date of the complaint;
 - (c) the complete details of the complaint and any other concerns or other issues raised; and
 - (d) the complete details and dates of any action taken by the works approval holder to investigate or respond to any complaint.
- 22.** The works approval holder must maintain accurate and auditable books including the following records, information, reports, and data required by this works approval:
- (a) the works conducted in accordance with condition 1;
 - (b) any maintenance of infrastructure that is performed in the course of complying with condition 6;
 - (c) monitoring programmes undertaken in accordance with condition 10; and
 - (d) complaints received under condition 21.

- 23.** The books specified under condition 22 must:
- (a) be legible;
 - (b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;
 - (c) be retained by the works approval holder for the duration of the works approval; and
 - (d) be available to be produced to an inspector or the CEO as required.
- 24.** The works approval holder must submit to the CEO the Construction Noise Management Plan required in accordance with condition 9 at a minimum of 45 calendar days prior to construction work commencing.
- 25.** The works approval holder must submit to the CEO the Addendum to the Environmental Management Plan 30 days prior to screening operations commencing.

Definitions

In this works approval, the terms in Table have the meanings defined.

Table 4: Definitions

Term	Definition
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V Division 3 of the EP Act.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
EP Act	<i>Environmental Protection Act 1986</i> (WA).
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA).
RL	means Relative Level measured in metres
PM ₁₀	Particulate matter 10 micrometers or less in diameter.
premises	the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions and commences immediately when the compliance report has been received by DWER.
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.
works approval holder	refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval.

END OF CONDITIONS

Premises map

The prescribed premises boundary is shown in red on the map below, within which falls the site boundary being part of Lot 6, part of Lot 300 and part of Lot 301 Boomerang Road. Prescribed premises boundary coordinates are marked from 1 to 6 and are described in Table 5.

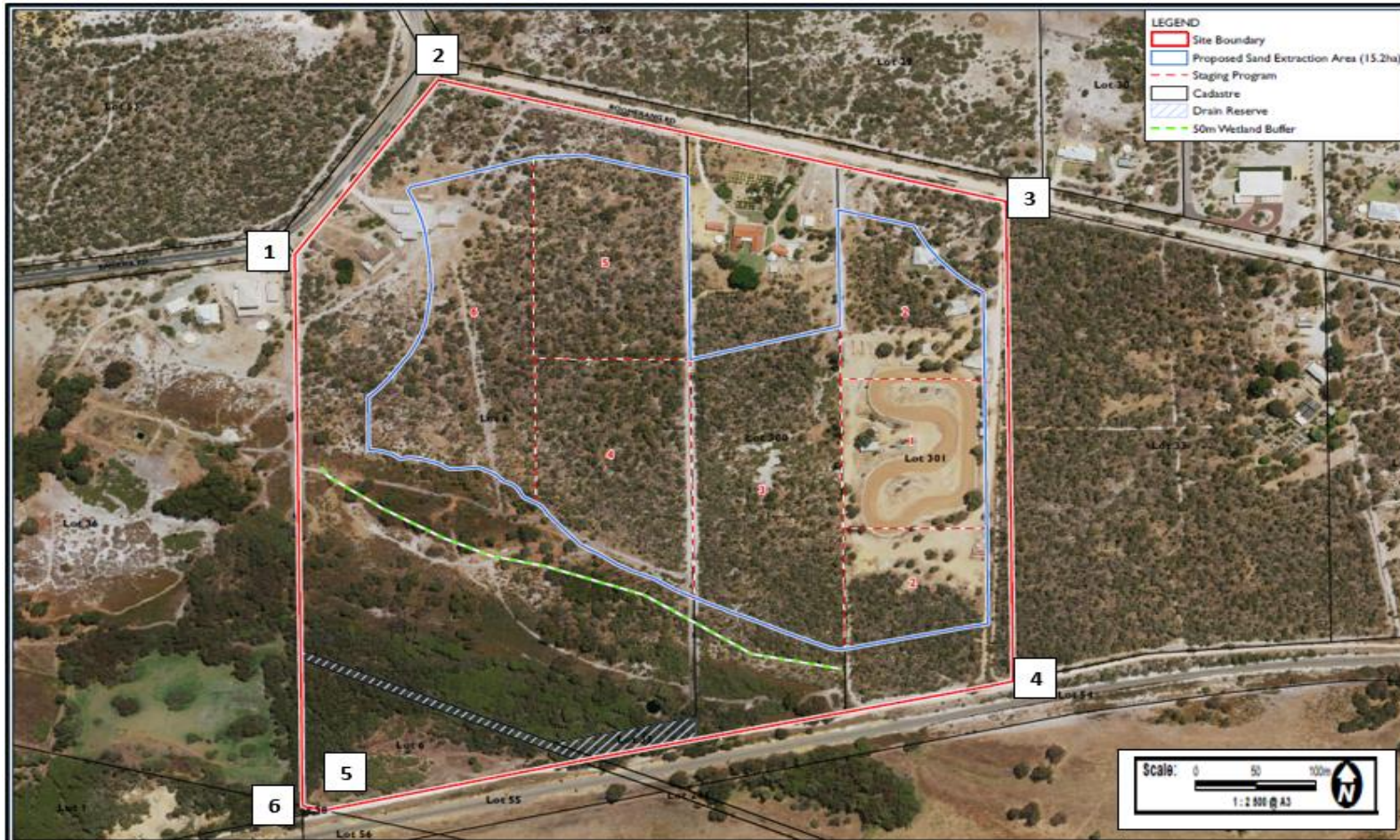


Figure 1: Premises boundary map.

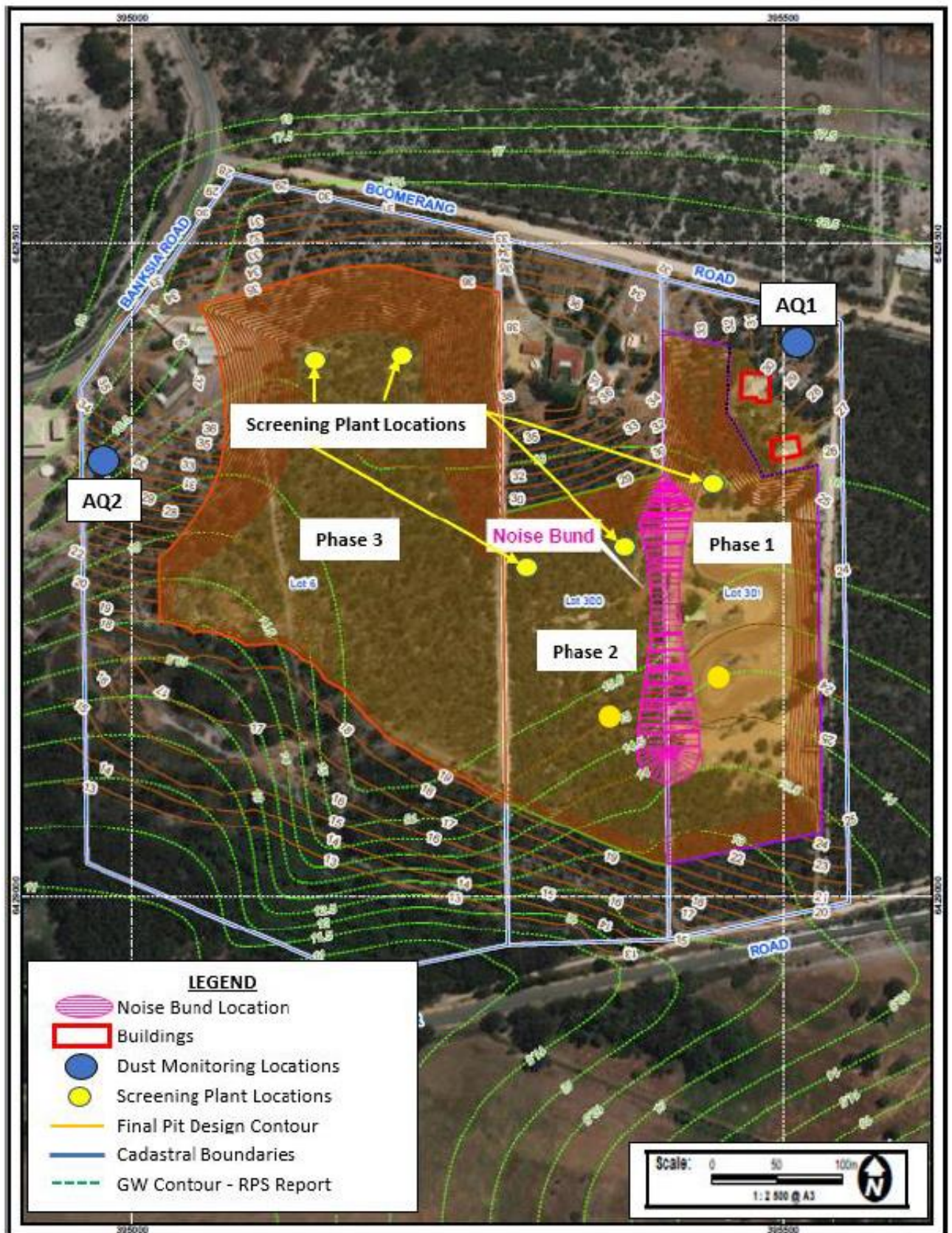


Figure 2 – Noise bund, dust monitoring points and screening plant locations



Figure 3: Location of dust screens of fencing around sand extraction boundary (shown in red).

Prescribed Premises Boundary Coordinates

Table 5: Premises boundary coordinates.

Point	Easting	Northing
1	394960	6429391
2	395078	6429554
3	395544	6429441
4	395550	6428994
5	394984	6428874
6	394966	6428878